WHAT IS CLAIMED IS:

1.   A method of disconnecting a terminating connection leg in a dialed service for a mobile subscriber in a mobile switching center (MSC) for providing a

5   mobile intelligent network service to the mobile subscriber under a control of a service control point (SCP) in a mobile intelligent network, comprising the steps of:

transmitting a service request message to the SCP in a call initialization procedure for handling one of a mobile originating (MO) and a mobile forwarding (MF) call;

10   entering a waiting state;

receiving a message requesting disconnection of the terminating connection leg from the SCP;

transmitting an acknowledgement for the message requesting disconnection of the terminating connection leg to the SCP;

15   releasing the terminating connection leg with an originating connection leg maintained;

entering a terminating connection leg disconnected state;

setting a result of the call initialization procedure to "terminating connection leg disconnected", upon receiving a message requesting call continuation from the SCP

20   in the terminating connection leg disconnected state;

upon receiving a message requesting call continuation according to modified information in the terminating connection leg disconnected state, modifying stored information with information included in the message requesting call continuation, and setting the result of the call initialization procedure to "terminating connection leg

25   disconnected"; and

providing available supplementary functions after disconnecting the terminating connection leg under the control of the SCP, if the result of the call initialization procedure is "terminating connection leg disconnected".

30   2.   The method of claim 1, further comprising the step of setting the result of the call initialization procedure to "terminating connection leg disconnected",

upon receiving a message requesting disconnection of the originating connection leg from the SCP in the terminating connection leg disconnected state.

3.   The method of claim 1, further comprising the steps of:

upon receipt of a message requesting connection to an external resource system from the SCP in the terminating connection leg disconnected state, establishing a connection to an external resource system, being assigned to resources from the external resource system, and then releasing the connection to the external resource system; and

determining whether the resource assignment is successful and, if the resource assignment is successful, returning to the terminating connection leg disconnected state.

4.   The method of claim 1, further comprising the steps of:

setting the result of the call initialization procedure to "fail" and terminating the call initialization procedure, upon receiving a message requesting one of call release and a message indicating an error generation from the SCP in the terminating connection leg disconnected state; and

setting the result of the call initialization procedure to "abort" and terminating the call initialization procedure, upon receiving one of a message reporting a call release event from a calling party and a message reporting an MF call cancel from the SCP in the terminating connection leg disconnected state.

5.   The method of claim 1, wherein the step of providing the supplementary functions comprises the steps of:

determining the result of the call initialization procedure, after the call initialization procedure;

if the result of the call initialization procedure is "terminating connection leg disconnected", setting the result of one of the MO and the MF call dialed service procedure to "terminating connection leg disconnected"; and

if the result of the one of the MO and MF call dialed service procedure is "terminating connection leg disconnected", setting the status of the originating connection leg to set-up, controlling the originating connection leg under a control of the SCP, and providing the supplementary functions.

6.   A method of disconnecting a terminating connection leg in a dialed service for a mobile subscriber in a mobile switching center (MSC) for providing a mobile intelligent network service to the mobile subscriber under a control of a service
5   control point (SCP) in a mobile intelligent network, comprising the steps of:

setting up a mobile originating (MO) call;

determining whether the MO call is allowed;

performing a service initialization procedure for handling the MO call, if the MO call is allowed;

10   performing an MO call dialed service procedure, if a result of the service initialization procedure is "pass";

controlling an originating connection leg under a control of the SCP, if a result of the MO call dialed service procedure is "leg1_only"; and

providing available supplementary functions after disconnecting the
15   terminating connection leg.

7.   The method of claim 6, wherein the step of performing the MO call dialed service procedure comprises the steps of:

performing a subscriber-specific MO call initialization procedure;

20   suppressing MO call subscriber information and performing a network-specific MO call initialization procedure, if a result of the subscriber-specific MO call initialization procedure is "pass",;

performing a normal call process, if a result of the network-specific MO call initialization procedure is "pass"; and

25   setting the result of the MO call dialed service procedure to "termination connection leg disconnected", if one of the result of the subscriber-specific MO call initialization procedure and the result of the network-specific MO call initialization procedure is "terminating connection leg disconnected".

30   8.   The method of claim 7, wherein each of the step of performing the subscriber-specific MO call initialization procedure and the step of performing the network-specific MO call initialization procedure comprises the steps of:

upon receiving a message requesting disconnection of the terminating connection leg from the SCP in a waiting state after transmitting a service request message to the SCP, transmitting an acknowledgement for the received message to the SCP, releasing the terminating connection leg with the originating connection leg

5   maintained, and entering a terminating connection leg disconnected state;

setting a result of the MO call initialization procedure to "terminating connection leg disconnected", upon receiving a message requesting call continuation from the SCP in the terminating connection leg disconnected state;

upon receipt of a message requesting call continuation according to modified

10   information in the terminating connection leg disconnected state, modifying stored information with information included in the message requesting call continuation, and setting the result of the MO call initialization procedure to "terminating connection leg disconnected"; and

providing the available supplementary functions after disconnecting the

15   terminating connection leg under the control of the SCP, if the result of the MO call initialization procedure is "terminating connection leg disconnected".

9.   The method of claim 8, further comprising the step of setting the result of the MO call initialization procedure to "terminating connection leg

20   disconnected", upon receiving a message requesting disconnection of the originating connection leg from the SCP in the terminating connection leg disconnected state.

10.   The method of claim 8, further comprising the steps of:

upon receiving a message requesting a connection to an external resource

25   system from the SCP in the terminating connection leg disconnected state, establishing a connection to the external resource system, being assigned to resources from the external resource system, and then releasing the connection to the external resource system;

determining whether the resource assignment is successful; and

30   if the resource assignment is successful, returning to the terminating connection leg disconnected state.

11.   The method of claim 8, further comprising the steps of:

setting the result of the MO call initialization procedure to "fail" and terminating the MO call initialization procedure, upon receiving a message requesting one of a call release and a message indicating error generation from the SCP in the
5   terminating connection leg disconnected state; and

setting the result of the MO call initialization procedure to "abort" and terminating the MO call initialization procedure, upon receiving a message reporting a call release from the SCP in the terminating connection leg disconnected state.

10   12.   A method of disconnecting a terminating connection leg in a dialed service for a mobile subscriber in a mobile switching center (MSC) for providing a mobile intelligent network service to the mobile subscriber under a control of a service control point (SCP) in a mobile intelligent network, comprising the steps of:

receiving a message requesting a mobile forwarding (MF) call handling for the
15   mobile subscriber in an idle state;

performing a service initialization procedure for handling the MF call;

performing an MF call dialed service procedure, if a result of the service initialization procedure is "pass"; and

controlling an originating connection leg under a control of the SCP, if a result
20   of the MF call dialed service procedure is "leg1_only", and providing available supplementary functions after disconnecting the terminating connection leg.

13.   The method of claim 12, wherein the step of performing the MF call dialed service procedure comprises the steps of:
25   performing a subscriber-specific MF call initialization procedure;

performing a network-specific MF call initialization procedure, if a result of the subscriber-specific MF call initialization procedure is "pass";

performing a normal call process, if a result of the network-specific MF call initialization procedure is "pass"; and
30   setting a result of the MF call dialed service procedure to "termination connection leg disconnected", if a result of one of the subscriber-specific MF call

initialization procedure and the network-specific MF call initialization procedure is "terminating connection leg disconnected".

14.   The method of claim 13, wherein each of the step of performing the subscriber-specific MF call initialization procedure and the step of performing the network-specific MF call initialization procedure comprises the steps of:

upon receipt of a message requesting disconnection of the terminating connection leg from the SCP in a waiting state after transmitting a service request message to the SCP, transmitting an acknowledgement for the received message to the SCP, releasing the terminating connection leg with an originating connection leg maintained, and entering a terminating connection leg disconnected state;

setting a result of the MF call initialization procedure to "terminating connection leg disconnected", upon receipt of a message requesting call continuation from the SCP in the terminating connection leg disconnected state;

upon receipt of a message requesting call continuation according to modified information in the terminating connection leg disconnected state, modifying stored information with information included in the message requesting call continuation, and setting the result of the MF call initialization procedure to "terminating connection leg disconnected"; and

providing the available supplementary functions after disconnecting the terminating connection leg under the control of the SCP, if a result of the MF call initialization procedure is "terminating connection leg disconnected".

15.   The method of claim 14, further comprising the step of setting the result of the MF call initialization procedure to "terminating connection leg disconnected", upon receiving a message requesting disconnection of the originating connection leg from the SCP in the terminating connection leg disconnected state.

16.   The method of claim 14, further comprising the steps of:
upon receiving a message requesting connection to an external resource system from the SCP in the terminating connection leg disconnected state, establishing a

connection to an external resource system, being assigned to resources from the external resource system, and then releasing the connection to the external resource system;

determining whether the resource assignment is successful; and

if the resource assignment is successful, returning to the terminating
5 connection leg disconnected state.

17. The method of claim 14, further comprising the steps of:

setting the result of the MF call initialization procedure to "fail" and terminating the MF call initialization procedure, upon receiving one of a message
10 requesting call release and a message indicating error generation from the SCP in the terminating connection leg disconnected state; and

setting the result of the MF call initialization procedure to "abort" and terminating the MF call initialization procedure, upon receiving a message reporting a call release from a calling party from the SCP in the terminating connection leg
15 disconnected state.

18. A system for disconnecting a terminating connection leg, while maintaining an originating connection leg for a call in a customized applications for mobile network enhanced logic (CAMEL) service network, comprising:
20 a service control point (SCP) for controlling CAMEL services; and

a mobile switching center (MSC) for providing the CAMEL services to mobile subscribers under a control of the SCP,

wherein the MSC performs the steps of:

receiving a message (Int_Disconnect_Leg(Leg2)) requesting disconnection of
25 the terminating connection leg from the SCP in a DP_Analysed_Info waiting state, after transmitting a service request message to the SCP in a call initialization procedure for handling of one of a mobile originating (MO) and a mobile forwarding (MF) call;

transmitting an acknowledgement (Int_Disconnect_Leg_Ack) for the message requesting disconnection of the terminating connection leg (Leg2) to the SCP, releasing
30 the terminating connection leg with an originating connection leg (Leg1) maintained, and entering a terminating connection leg disconnected state (Leg2_Disconnected);

setting a result of the call initialization procedure to "terminating connection leg disconnected (Leg1_Only)", upon receiving a message (Int_Continue) requesting call continuation from the SCP in the Leg2_Disconnected state;

upon receipt of a message (Int_Continue_With_Argument) requesting call
5   continuation according to modified information in the Leg2_Disconnected state, modifying stored information by information included in the Int_Continue_With_Argument message, and setting the result of the call initialization procedure to "Leg1_Only"; and

providing available supplementary functions after disconnecting the
10 terminating connection leg under a control of the SCP, if a result of the call initialization procedure is "Leg1_Only".

19.   The system of claim 18, wherein the MSC further performs the step of setting the result of the call initialization procedure to "Leg1_Only", upon receiving a
15 message (Int_Disconnect_Leg1(Leg1)) requesting disconnection of the originating connection leg from the SCP in the Leg2_Disconnected state.

20.   The system of claim 18, wherein the MSC further performs the steps of:
20   upon receiving one of a message (Int_Establish_Temporary_Connection and Int_Connect_To_Resource) requesting connection to an external resource system from the SCP in the Leg2_Disconnected state, establishing a connection to the external resource system, being assigned to resources from the external resource system, and then releasing the connection to the external resource system;
25   determining whether the resource assignment is successful; and

if the resource assignment is successful, returning to the Leg2_Disconnected state.

21.   The system of claim 18, wherein the MSC further performs the steps
30 of:

setting the result of the call initialization procedure to "fail" and terminating the call initialization procedure, upon receiving one of a message (Int_Release_Call)

requesting call release and a message (Int_Error) indicating error generation from the SCP in the Leg2_Disconnected state; and

setting the result of the call initialization procedure to "abort" and terminating the call initialization procedure, upon receiving one of a message (Release
5 Transaction) reporting a call release event from a calling party and a message (CF Cancelled) reporting an MF call cancel from the SCP in the Leg2_Disconnected state.

22. The system of claim 18, wherein in the step of providing the supplementary functions, the MSC performs the steps of:
10 determining a result of the call initialization procedure after the call initialization procedure;

if the result is "Leg1_Only", setting the result of the one of the MO and the MF call dialed service procedure to "Leg1_Only"; and

if the result of the one of the MO and the MF call dialed service procedure is
15 "Leg1_Only", setting the status of the originating connection leg to set-up, performing a procedure for controlling the originating connection leg under the control of the SCP, and providing the supplementary functions.